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Terms	Documents
L4 and (practic\$6 or train\$3)	1

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<u>L1</u>	(5712984 or 5930759 or 5359509).pn.	3	<u>L1</u>

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L4: Entry 1 of 1

File: USPT

Jul 27, 1999

DOCUMENT-IDENTIFIER: US 5930759 A

TITLE: Method and system for processing health care electronic data transactions

US Patent No. (1):
5930759Brief Summary Text (5):

After the appropriate form or forms are completed, they are mailed either to the insurance company or other carrier or to a third party administrator to be processed. In either case, upon receipt, the processor opens the envelope and manually inputs information on the forms into their own computers. Then, after a decision is made as to whether payment for the procedure is appropriate, and if so, the amount of such payment and the proper payee, a check is prepared and mailed to that payee. Additional manual labor may be needed to keep track of the total amount of claims submitted by each patient during a specified period and to keep track of other matters, such as for statistical purposes.

Brief Summary Text (15):

Another object of this invention is to provide personal patient data files having machine readable data encoded thereon and that can be used by a health care facility to prepare a complete health care insurance claim, and to obtain eligibility, policy benefit and other related data at the time and place at which services are provided to the patients. These data files may be in several forms or combinations of forms. For example, individual, portable cards may be made, with each card having the personal patient data file for a respective patient encoded thereon. Alternately, or in combination with the foregoing, individual health care facilities may be given printed patient rosters containing the personal portable data files of patients that have a defined association with the facility.

Brief Summary Text (21):

Preferably, the personal data files are two-dimensional bar codes printed in PDF417 format, and each patient's bar code contains all of the information about the patient that is needed to prepare an electronic claim form. The bar code may contain additional data to help facilitate and expedite the preparation, filing, processing and collecting of the health care claims or to obtain health care information electronically, such as eligibility and policy benefits.

Brief Summary Text (23):

The highly automated and accurate system disclosed herein in detail captures data and data fields and uses them to file health care insurance claims, inquire electronically about the patient eligibility and policy benefits, electronically checks unprocessed insurance claims, and automatically adds narrative discussions for electronic transmissions.

Brief Summary Text (24):

Further benefits and advantages of the invention will become apparent from a consideration of the following detailed description, given with reference to the accompanying drawings, which specify and show preferred embodiments of the invention.

Detailed Description Text (6):

Upon receipt of this electronic claim form, clearinghouse 12 processes that claim or transaction and sends it on to the patient's insurance company or other health care payor to determine various items of information such as eligibility, policy benefits, claim dates, a payment amount and the names of the payor and payee. Processing unit 12

also identifies the insurance company or payor that issued the policy or plan under which the claim is being made. The insurance or other health care payor then determines the appropriate response to the claim. On some occasions the claims will be sent through intermediate clearinghouses 13.

Detailed Description Text (7):

Network 10 is very well suited for use as a complete system for preparing and submitting health care claims made by a large number of patients pursuant to insurance policies or other plans issued by many insurance companies or payors and for services and treatments provided at a large number of facilities. Also, the claims can be completely assembled electronically, without any paper forms, without the need for any highly skilled computer operator, and with a very high degree of accuracy. Moreover, by taking advantage of the unique features and benefits of network 10, this network may be, and preferably is, designed so that the claims may be prepared at the time and place at which the health care services are provided to the patients. The personal portable data files 20 are an important part of the network that helps the network achieve these significant benefits.

Detailed Description Text (12):

The data on the bar code that is transmitted to the telecommunications unit 24 is stored in an electronic memory area or file area of the telecommunications unit, producing a data file at the facility for the individual. That data may then be used to return policy information, eligibility or benefits or to process a treatment claim, and preferably the data is transmitted to a permanent electronic file at the facility. Subsequent needs for any of this data, either during that first visit or during future visits, may be satisfied, for example, by copying the bar code on a printed label and attaching it to the patient's facility record, eliminating the need to use continuously the data card. Also, printed copies of the personal data in the bar code, or of the bar code itself, may be made and placed on the patient's chart, to be used during treatment of the patient.

Detailed Description Text (15):

Section 30d of the bar code contains data describing the eligibility requirements of the plan. For instance, this bar code section may contain a phone number to which information may be transmitted, may contain a free text area, and may have a database phone number with patient identifier. Section 30e contains information about the plan benefits, particularly its medical and dental benefits. For example, this section of the bar code may have a benefits phone number, the plan dates, the waiting period, copayments, the deductible, and the yearly maximum; and bar code section 30c may have other information referred to as preventive, basic, major, frequency PX, and frequency BWX. Information identifying an initial placement, an extraction clause, and information relating to whether an X-ray or period chart are needed, may also be included in section 30e. In addition, this bar code section may have data relating to sealants, other orthodontal information, information about exclusions, medical requirements, cosmetics, dependent age, whether a signature is on file, and a coordination rule.

Detailed Description Text (16):

Bar code section 30f contains information that is used by central claims processing unit 12 to determine whether a particular claim submitted by the subscriber qualifies for immediate adjudication, referred to as on-line adjudication. To elaborate, most health care claims can be considered as falling into one of two groups; those that are adjudicated individually, and those that are adjudicated in batches. Batch claims are normally not adjudicated immediately upon receipt by processing unit 12; but instead, these claims are held and collected by processing unit 12 until the appropriate group, or batch, of such claims is assembled, and then the whole batch of claims are adjudicated together. Claims that do not require batching may be adjudicated individually. Moreover, some of these claims can be adjudicated automatically by the insurance companies or other health care payors, immediately upon receipt of the claims without any person actually looking at or reviewing the claims. Section 30f of bar code 30 identifies those types of claims that can be made by the patient that qualify for this immediate adjudication.

Detailed Description Text (50):

Upon receipt of the electronic transaction or claim form, clearinghouse 12 checks to be sure that all necessary data has been submitted pursuant to the patient's insurance policy or other coverage plan. If complete, the claim may then be transmitted to the insurance company or other health care payor, who may determine if payment for the services received by the patient is appropriate, and if so, the appropriate amount of

the payment, the payor and the payee. System 10 may be designed so that if payment is appropriate, processor 26 initiates a procedure to make that payment. For example, processor 26 may transmit a command to a printer to print a check for the appropriate payment.

Detailed Description Text (52):

Screen 102 lists eight tasks or routines: (1) ordering dental supplies, (2) checking the eligibility of the claimant, (3) printing the bar code on the claimant's data card 32, (4) filling out an insurance claim form, (5) filling out an HMO encounter form, (6) filling out a predetermination form, (7) reviewing items entered by the operator prior to transmitting those items to central claims clearinghouse 12, and (8) providing a review of an explanation of various available benefits. A number is provided on screen 84 to identify each of these routines; and to start a specific routine, the operator inputs the number identifying that routine. For example, to start the routine to order dental supplies, the operator would input "1"; and to start the routine to check the eligibility of the claimant, the operator inputs "2."

Detailed Description Text (84):

FIG. 21 shows a receipt 150 that will be retained by the doctor's office upon the filing of a health care claim. This preferred receipt 150 contains a significant amount of information that is useful for several reasons. The receipt provides important information about the services received by the patient and about the patient, and this receipt has important information about the filed health care claim, and thus is very useful in tracking that claim in the event of slow or non-payment.

CLAIMS:

1. A system for filing health care claims electronically when health care services are provided to a patient by a service provider and paid or recorded by a third party payor upon the receipt of a health care claim, said system comprising:

(a) a personal data card to be carried by the patient, said card bearing human readable indicia identifying the patient, and a machine readable data file, said data file including a two dimensional pattern of marks wherein the encoded marks together include a plurality of information words, including patient identification, third party insurer identification, and entitlement and benefit information relation to the relationship between the patient and the third party payor;

(b) a reader for scanning the machine readable data file and decoding said two dimensional pattern of marks into a plurality of separated patient digital fields and insurer digital fields, each of said fields enabling one or more information words to be decoded therefrom;

(c) means for entering a plurality of service provider digital fields entered by said service provider, said service provider digital fields representing service provided to said patient,

(d) a data processing means for receiving said separated patient digital fields and said insurer digital fields from said reader, and said plurality of service provider digital fields entered by said service provider, said data processing means assembling said fields to form a health care claim to be presented to said payor for payment thereof on behalf of the patient;

(e) data memory means for storing one or more health care insurance claims for services rendered to one or more patients by said service provider as digital claims;

(f) data communication means for transmitting one or more of the digital claims from said service provider to said payor or clearing house via a common carrier.

12. A system for filing health care claims electronically as claimed in claim 1, wherein said data file includes a telephone number for said payor encoded therein to enable said data processing means and said data communication means to automatically connect the service provider with the payor via a common carrier to verify a benefit or entitlement prior to providing service to said patient.

13. A health care data card for completing health care claims to be filed electronically when health care services are provided to a patient by a service provider and paid by a third party payor upon the receipt of a health care claim, said data card comprising a health care data card issued by the third party insurer and

carried by the patient, said card bearing human readable indicia identifying the patient, the service provider, and a machine readable data file, said data file including at least two adjacent codewords, each codeword represented by a pattern of marks wherein the codewords together include a plurality of information words, including encoded patient identification fields, encoded third party insurer identification fields, and encoded fields denominating entitlement and benefit information representative of the relationship between the patient and the third party insurer, said card used by the service provider to verify benefits and entitlement prior to service, and to complete a health care claim for submission to said third party payor after the provision of health care benefits.

17. A method of filing health care claims electronically when health care services are provided to a patient by a service provider and paid by a third party payor upon the receipt of a medical claim pursuant to a health care insurance policy, said method comprising:

(a) encoding a health care data card with a machine readable data file, said data file including a two dimensional pattern of marks wherein the encoded marks together include a plurality of information words, including patient identification, third party payor identification, and entitlement and benefit information relation to the relationship between the patient and the payor;

(b) imprinting the card with human readable indicia and issuing the card to a patient to be carried by the patient for a period as defined by said insurance policy,

(c) scanning the machine readable data file at a service provider facility and decoding said two dimensional pattern of marks into a plurality of separated patient digital fields and insurer digital fields, each of said fields enabling one or more information words to be decoded therefrom;

(d) entering a plurality of service provider digital fields at said service provider facility, said service provider digital fields representing at least one service provided to said patient,

(e) interleaving said separated patient digital fields and said insurer digital fields from said scanning step and said plurality of service provider digital fields from said entering step and assembling said fields electronically to form a health care claim to be presented to said payor for payment thereof on behalf of the patient;

(f) assembling one or more health care claims for services rendered to one or more patients by said service provider; and

(g) electronically transmitting said health care claim(s) for services rendered to said patients(s) by said service provider to said insurer via a common carrier data communication.

18. An apparatus for filing health care claims electronically when health care services are provided to a patient by a service provider and paid by a third party payor upon the receipt of a medical claim pursuant to a health care policy, said apparatus comprising:

(a) a scanner for scanning a machine readable data file encoded on a health care data card carried by the patient, said data file including a two dimensional pattern of marks wherein the encoded marks together include a plurality of information words, including patient identification, third party payor identification, and entitlement and benefit information relation to the relationship between the patient and the third party payor;

(b) a decoding means for decoding said two dimensional pattern of marks into a plurality of separated patient digital fields and payor digital fields, each of said fields enabling one or more information words to be decoded therefrom;

(c) data entry means for entering a plurality of service provider digital fields entered by said service provider, said service provider digital fields representing service provided to said patient,

(d) a data processing means for receiving said separated patient digital fields and said insurer digital fields from said reader, and said plurality of service provider digital fields entered by said service provider, said data processing means assembling

said fields to form a health care claim to be presented to said payor for payment thereof on behalf of the patient;

(e) data memory means for storing one or more health care claims for services rendered to one or more patients by said service provider;

(f) data communication means for transmitting one or more health care claims from said service provider to said payor via a common carrier.

19. A system for assembling, filing and processing health care claims made by patients pursuant to coverage policies issued to the patients by claim payors for service provided to the patients at health care facilities, the network comprising:

a multitude of participating patients, each of the patients having a respective one portable personal data file including a set of patient related data including patient identification, third party payor identification, and entitlement and benefit information relation to the relationship between the patient and the payor and encoded in a machine readable format;

a multitude of health care facilities, for providing health care services to the participating patients, each of the health care facilities having

i) a telecommunications unit, and

ii) a file reader to read the data on the personal data files and to transmit the patient related data to the telecommunications unit at the facility, wherein the telecommunications unit includes a control program having (1) a series of prompts, and (2) a claim assembling program to present the prompts in a human understandable format to solicit from an operator data related to services provided to the patients at the health care facility, and to assemble the patient related data from the personal data files and the service related data from the operator into electronic claim forms;

a plurality of claim payor companies having telecommunications units;

a central clearinghouse connected to the telecommunications units of the health care facilities and connected to the telecommunications units of the claim payor companies, the claims processing unit including

means to receive the electronic claim forms from the health care facilities, to check the electronic claim forms and to transmit said claims to the payor companies for adjudication and payment.

21. A computer system for electronically assembling a health insurance claim, each of said claims including patient related data and treatment related data, the system comprising:

a data processing unit;

a memory unit including a claim assembly area;

means connecting the clearinghouse unit and the memory unit together to transmit data therebetween;

input means for receiving data, and including

i) means to receive patient related data including patient identification, third party payor identification, and entitlement and benefit information relation to the relationship between the patient and the payor in an electronic format, and

ii) means to receive input from an operator;

output means for transmitting data from the computer system, and including a screen; and

a control program stored in the data processing unit, and including

i) a series of prompts, and

ii) a claim assembling program to present the prompts on the screen in a predefined

order to prompt the operator to input the treatment related data, and to transmit the patient related data and the treatment related data to the claim assembly area to assemble an electronic claim form therein.

23. A computer program for electronically assembling health care claims in a computer system, wherein each of the health care claims includes patient related data and treatment related data, and wherein the program is for use with a computer system including a data processing unit, a memory unit, first input means to receive patient related data in an electronic format, second input means to receive input from an operator, and a screen, the computer program comprising:

a carrier medium; and

a control program stored on the carrier medium, and including

i) a series of prompts, and

ii) a claim assembling program for operating the computer system to present the prompts on the video monitor in a predefined order to prompt the operator to input the treatment related data, and to transmit the patient related data including patient identification, third party payor identification, and entitlement and benefit information relation to the relationship between the patient and the payor and the treatment related data to the memory area of the computer system to assemble an electronic claim form in said memory area.

25. A system for processing insurance claims for services received by patients, the system comprising:

a portable personal data file including a set of data related to a patient including patient identification, third party payor identification, and entitlement and benefit information relation to the relationship between the patient and the payor and encoded in a machine readable format;

a local telecommunications unit including

i) input means for receiving input data from an operator,

ii) output means,

iii) a memory unit,

iv) a control program, and

v) a series of prompts stored in the memory area for soliciting input data from the operator related to services received by the patient; and

a reader for reading the patient related data from the portable personal data file and transmitting said patient related data to the processing unit;

wherein the control program operates (i) to present the prompts on the output means in a human understandable format and in an order determined in accordance with a preset program, to solicit from the operator the treatment related data, and (ii) to assemble the patient related data received from the reader and the treatment related data received from the operator, in the memory area to form an electronic claim form therein.

28. A method for processing insurance claims for services received by patients, the method comprising:

providing a two-dimensional portable personal data file including a set of data related to a patient including patient identification, third party payor identification, and entitlement and benefit information relation to the relationship between the patient and the payor and encoded in a machine readable format;

providing a local telecommunications unit including a memory section;

using a machine to read the patient related data from the portable personal data file and to transmit said patient related data to the telecommunications unit;

presenting a series of prompts to an operator, in an order determined in accordance with a preset program, to solicit from the operator input data related to services received by the patient;

responding to the prompts by inputting to the telecommunications unit the service related data; and

assembling the patient related data and the treatment related data in the memory section of the telecommunications unit to form an electronic claim form therein.